

**REMARKS**

The specification is amended to correct a typographical error.

Claims 1-6, 11, 13-14, and 20 are cancelled. Claims 7, 9, 12, 15, and 17 are amended to explicitly recite that the sensor housing is connected to a power supply, which in turn is operative to connect to a data acquisition system (claims 7-12) or connected to the data acquisition system (claims 15-19). That is, in all of the claims, the power supply is interposed between the sensor housing and a data acquisition system. Support for these amendments is found, e.g., in figure 1.

As those of skill in the art will appreciate, interposing the power supply 14 between the sensor housing 12 and a data acquisition system 16 is not merely one of numerous system component connection configurations, but rather is critical to the operation of the FT sensor in an industrial environment. FT sensors are often deployed in industrial environments (p. 1, lines 6-9), where electrical noise may interfere with signal integrity. As the specification describes at p. 4, lines 13-17:

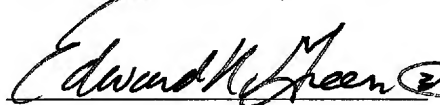
The electronics on interface board 22 receive signals from the transducers within the FT sensor 12, such as strain gauges, and covert them to readable DAQ card signals using noise immunity technology. The DAQ card signals are preferably differentially driven for further noise immunity.

As those of skill in the art understand, placing the power supply 14 physically proximate the FT sensor 12 reduces the chance that either transducer outputs or DAQ signals (depending on whether the interface electronics 22 reside in the power supply 14 or sensor housing 12, respectively) will be degraded by electrical noise. As explained in the specification (e.g., p.6, lines 20-26), differential drivers (e.g., RS-485) are preferably used for the signals between the power supply 14 and the data acquisition system 16 on cable 20/24, also for noise immunity. Accordingly, the claim limitations connecting the sensor housing to the power supply, and in turn, the power supply to a data acquisition system, must be given patentable weight.

The prior art of record does not disclose this configuration of sensor housing, power supply, and data acquisition system, with the transducer electronics and calibration memory disposed either in the sensor housing or in the power supply. For at least the reason that the cited references, whether considered individually or in combination, fail to teach or suggest every claim limitation, the § 103 rejections must be withdrawn.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.

A handwritten signature in black ink, appearing to read "Edward H. Green, III", is written over a horizontal line.

Edward H. Green, III  
Registration No.: 42,604

Dated: July 11, 2007

P.O. Box 5  
Raleigh, NC 27602  
Telephone: (919) 854-1844  
Facsimile: (919) 854-2084